

**Conserving Cracids:  
The most Threatened Family of Birds  
in the Americas**



**Edited by Daniel M. Brooks**

**Miscellaneous Publications of  
The Houston Museum of Natural Science, Number 6**



### **White-winged Guan (*Penelope albipennis*)**

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#### **Work to Date**

The White-winged Guan was described in 1877 and was known from three skins, one collected in mangroves of Tumbes department, in extreme Northwestern Peru, and two collected from the Equatorial dry forest at Hacienda Pabur, Piura department, 200 km southeast of the first locality (Vaurie 1968, de Macedo 1979). After these records, no other observations of the species were made until 1977, when was rediscovered at Quebrada San Isidro, near the border between Piura and Lambayeque departments (de Macedo 1979). In 1978 the first population survey was conducted and resulted in 62 individuals (Ortiz 1980). A second survey carried out in 1987 reported 97 birds (Ortiz and Diaz 1997) and a third survey in 1990 resulted in 153 birds (Diaz and del Solar 1997). Fernando Angulo is currently carrying out a fourth survey.

This Peruvian and Tumbesian endemic guan is monogamous and territorial, being active during the first and last hours of the day. It has a breeding season between January and August and usually lays two eggs. It feeds on fruits, flowers, seeds, leaves and sprouts of bushes and trees (Ortiz 1980, Ortiz and Diaz 1997). The nest is constructed around 3 m above ground and is composed of twigs and leaves (Ortiz 1980, Williams 1980). Eley (1982) studied the systematic relationships and zoogeography of the White-winged Guan. The current distribution of the species occurs between 5°25'S-79°55'W to the north, and 6°39'25"S-79°22'30"W to the south, inside the equatorial or Tumbesian dry forests of the western slope of the main Andean chain, between 300-1100 masl (Ortiz and Diaz 1997, Diaz and del Solar 1997), but has been reported up to 1400 masl. The White-winged Guan inhabits small ravines or quebradas in a strip approximately 120 km long and 10 km wide.

There is a captive breeding program for the species, which started in 1978 and currently (June 2005) holds around 80 individuals. This program supplies birds for the species reintroduction program, which began in 2000 in the Chaparrí private conservation area. Both sites are located in Lambayeque department (del Solar 1988, Angulo 2003). Until late 2003, there were three chicks born in the wild from reintroduced parents (Angulo 2004), and to date (June 2005) there are 20 that were born in the same conditions. El Angulo Hunting reserve (Piura) and the Laquipampa

reserved zone (Lambayeque) had been surveyed to determinate their potential as reintroduction sites and both had been found to be favorable (Angulo and Barrio 2004, Angulo and Beck 2004).

Research on wild populations is being carried out to determine seasonal diet changes and assess habitat. Diet has been determined for reintroduced populations (Lerner 2003). Survivorship is estimated at 55% two years after release (Angulo 2004).

### **Status and Threats**

The White-winged Guan is considered Critically Endangered (BirdLife International 2000) and under the same category by the Peruvian legislation. This cracid was considered of Immediate Conservation Priority by the IUCN/SSC Cracid Specialist Group (Brooks and Strahl 2000), and is listed in the appendix I of CITES. The Peruvian government created the Laquipampa reserved zone (11,347 ha) in 1982 with the aim of especially protecting this species and its habitat (Flanagan y Angulo 2002). In 2003 a law declared it to be of “National Interest”. In addition to this, the government of Lambayeque has declared the White-winged Guan as the “Regional Bird”, and Park guard training has taken place (Flanagan and Williams 2001).

The total captive population is estimated at 105 individuals placed at four different sites: two of them housed in breeding centers in Olmos, and two in zoos in Lima. The population at the Bárbara D’Achille breeding center holds the largest captive population, numbering around 80 individuals (June 2005). The reintroduced population, estimated at 35 birds (June 2005), is found in the Chaparrí private conservation area and probably bordering property as well. The wild population has been projected to number less than 300 individuals (Diaz and del Solar 1997) and preliminary results of ongoing population surveys suggest that this number is accurate.

Threats for the species short-term survivorship include habitat loss by seasonal agriculture (during the rainy season), tree extraction for flooring, firewood, cattle feed, construction, religious use (*Bursera graveolens*) and for the fruit box industry. Additionally, cattle impact plant regeneration in the habitat, and also destroy water sources. Another important threat for wild White-winged Guan populations is poaching by local and urban people.

With regard to the long-term threats, habitat fragmentation is becoming a major hazard for the species survival. The wild population is being fragmented into two metapopulations, one to the south and one to the north of the distribution range, with the Chiclayo-Tarapoto road acting as a barrier between them. This paved road facilitates human settlement, leading to forest clearance for agriculture sprawling on both sides of the road, resulting in an ecological barrier that the guans are unable to cross. This process does not allow for gene flow and viability of the metapopulations must be determined through genetic assessment.

### **Conservation Action**

- I. Expand protected habitat network, increase capacity and infrastructure for Park Staff at Laquipampa and implement the Lambayeque Biological Corridor proposal, supporting communities in establishing private reserves.
- II. Continue captive breeding (establishing at least two viable populations) and reintroduction and supplementation programs to unite small isolated populations through the guan’s range.
- III. Coordinate eco-tourism to enhance community and conservation benefits.

- IV. Initiate a multi-faceted environmental educational program in the region.
- V. Create a “National Conservation Strategy” for the White-winged Guan, to serve as a basic tool for directing future actions regarding this species.
- VI. Establish a studbook for the species to coordinate among holders of captive individuals to insure that a long-term viable captive population is maintained, as well as research on genetic status of both captive and wild White-winged Guan populations.
- VII. Develop and promote dry forest sustainable use strategies such as eco-tourism or apiculture in the White-winged Guan area of distribution and surrounding regions.
- VIII. Research the effects of the “El Niño” event on the guan populations.
- IX. Fundraising for the continuity of the White-winged Guan conservation project.



Reintroduced White-winged Guan on nest (photo by F. Angulo)